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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,471

03/24/2006

Toru Takenaka

62533.00042

9357

32294

7590

03/01/2010

SQUIRE, SANDERS & DEMPSEY L.L.P.

8000 TOWERS CRESCENT DRIVE

14TH FLOOR

VIENNA, VA 22182-6212

EXAMINER

MARC, MCDEUNEL

ART UNIT

PAPER NUMBER

3664

MAIL DATE

DELIVERY MODE

03/01/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/573,471

Applicant(s)

TAKENAKA ET AL.

Examiner

MCDIEUNEL MARC

Art Unit

3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/24/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-7 are pending.
2. The rejection to claims 1-7 under 35 U.S.C. 102(e) as being anticipated by Takenaka et al. (U.S. 6920374) is maintained.

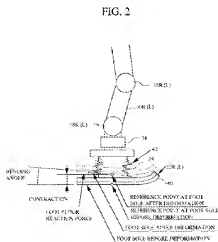
Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Takenaka et al. (U.S. 6920374).



As per claim 1, Takenaka et al. teaches leg type mobile robot (see figs. 1 and 2) comprising: an body (see fig. 1, being considered as having a body); legs each connected to the body via a first joint (see fig. 2, elements 18(L, R) and 16(L, R) being taken as first joint); and foots

each connected to an end part of the leg via a second joint (see fig. 2, elements 18(L, R) and 22(L, R) being taken as second joint), wherein the foot includes at least one foot portion, which has a ground area to be grounded on a floor surface at the bottom thereof (see fig. 2, element 40, particularly the foot sole), and a floor reaction force detector for detecting floor reaction force acting from a floor surface through the foot portion (see fig. 4, element 108, fig. 2, particularly the “foot floor reaction force” and col. 12, lines 51-61, again particularly “an actual foot floor reaction force detector”), and wherein the center of the second joint is offset against the position in a plane view (see fig. 2, which is an explanatory side view showing the structure of the foot of a biped robot), the position is the position where the distance to the remotest point of at least one ground area becomes minimum (see col. 13, lines 41-50, as to having ground area has been interpreted broadly with respect to the walking distance from predetermined departure to arrival), and the center of the floor reaction force detector (see fig. 4, element 108, fig. 2, particularly the “foot floor reaction force” and col. 12, lines 51-61, again particularly “an actual foot floor reaction force detector”), is closer to the position than the center of the ankle joint in a plane view (see fig. 2, particularly the center point on the sole).

As per claim 2, Takenaka et al. teaches leg type mobile robot wherein the center of the floor reaction force detector is offset to a rear direction with respect to the position (see abs, fig. 4, element 108, fig. 2, particularly the “foot floor reaction force”, and col. 12, lines 51-61, again particularly “an actual foot floor reaction force detector” and col. 29, lines 28-32, wherein the rear direction has been interpreted as the bending angle, contraction of the foot’s rear).

As per claims 3 and 7, Takenaka et al. teaches leg type mobile robot wherein the center of the floor reaction force detector (see abs, fig. 4, element 108, fig. 2, particularly the “foot floor reaction force”, and col. 12, lines 51-61, again particularly “an actual foot floor reaction force detector” is positioned on a line segment connecting the position and the center of the second joint (see figs. 1 and 2, elements 18(L, R) and 22(L, R) being taken as second joint as noted above).

As per claim 4, Takenaka et al. teaches leg type mobile robot wherein 5 the center of the floor reaction force detector is offset to a rear direction in a center side of the leg type mobile robot with respect to the position (see abs, fig. 4, element 108, fig. 2, particularly the “foot floor reaction force”, and col. 12, lines 51-61, again particularly “an actual foot floor reaction force detector” and col. 29, lines 28-32, wherein the rear direction has been interpreted as the bending angle, contraction of the foot’s rear).

As per claim 5, Takenaka et al. teaches leg type mobile robot wherein I0 the center of the floor reaction force detector is located on the perpendicular taken down from the center of the second joint to the line segment extended from the position to a rear direction (see abs, fig. 4, element 108, according to picture representation of element 1, the food and the last joint remain perpendicular, fig. 2, particularly the “foot floor reaction force”, and col. 12, lines 51-61, again particularly “an actual foot floor reaction force detector” and col. 29, lines 28-32, wherein the rear direction has been interpreted as the bending angle, contraction of the foot’s rear; note that the center point under the sole remains perpendicular with respect to element 22(L, R).

As per claim 6, Takenaka et al. teaches leg type mobile robot wherein the center of the floor reaction force detector is located on the perpendicular taken down from the center of the

second joint to the line segment extended from the position to a center of the leg type mobile robot (see abs, fig. 4, element 108, according to picture representation of element 1, the foot and the last joint remain perpendicular, fig. 2, particularly the “foot floor reaction force”, and col. 12, lines 51-61, again particularly “an actual foot floor reaction force detector” and col. 29, lines 28-32, wherein the rear direction has been interpreted as the bending angle, contraction of the foot’s rear; note that the center point under the sole remains perpendicular with respect to element 22(L, R).

Response to Arguments

As the reference not teaching “offset against a position ... whose distance to a remotest point of at least one ground area becomes minimum” (see Takenaka’s et al. col. 13, lines 41-50, as to having ground area has been interpreted broadly with respect to the walking distance from predetermined departure to arrival);

As the reference not teaching “a center of the floor reaction force detector (see Takenaka’s et al. fig. 4, element 108, fig. 2, particularly the “foot floor reaction force” and col. 12, lines 51-61, again particularly “an actual foot floor reaction force detector”) is closer to the position than to the center of the second joint in a plane view” (see Takenaka’s et al. fig. 2, which is an explanatory side view showing the structure of the foot of a biped robot).

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Applicant's arguments filed 11/24/2009 have been fully considered but they are not persuasive.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MCDIEUNEL MARC whose telephone number is (571) 272-6964. The examiner can normally be reached on M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MCDIEUNEL MARC/
Examiner, Art Unit 3664
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664